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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,620	09/30/2003	Marvin V. Manwaring	DP-308792 (60,408-461)	4198
22851	7590	12/27/2005	EXAMINER	
DELPHI TECHNOLOGIES, INC.			BROWN, DREW J	
M/C 480-410-202			ART UNIT	
PO BOX 5052			PAPER NUMBER	
TROY, MI 48007			3616	

DATE MAILED: 12/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/674,620	<b>Applicant(s)</b> MANWARING ET AL.	
	<b>Examiner</b> Drew J. Brown	<b>Art Unit</b> 3616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on amendment date 11/18/05.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☒ Claim(s) 5 and 6 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 November 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date: _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date: _____  | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

This office action is responsive to the amendment filed on 11/18/05. Original claims 1 and 5 have been amended.

#### ***Claim Objections***

1. Claim 1 is objected to because of the following informalities: In line 1, "of the type" should be deleted. In line 12, "[a]" is both underlined and bracketed. The examiner recommends removing the brackets. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Yoji et al. (JP 2002/002322). Yoji et al. discloses a housing 3 having a longitudinal axis, a support member 10 that is supported by the housing for rotary movement about a shift axis, and a shift lever 20 operatively connected to the support member and extending radially from the shift axis for shifting movement in a limited space to forcibly rotate the support member about the shift axis. The steering column assembly is also characterized by a break-away device 12, which interconnects the shift lever and the support member for limiting movement of the shift lever in directions parallel to the shift axis under normal driving conditions and for automatically

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releasing the shift lever for collapsing movement toward a parallel relationship (see position in Figure 6) with the shift axis in response to a crash condition (See Abstract).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoji et al. in view of Duval et al. (U.S. Pat. No. 6,367,840 B1). Yoji et al. discloses the claimed steering column assembly as discussed above but does not disclose that the break-away device comprises a fuse responsive to an electrical crash condition signal. Yoji also does not disclose that the break-away device includes a shear container that holds the fuse. Duval et al., however, discloses a fuse, or a pyrotechnic actuator 201, that is responsive to an electrical crash condition signal and also held by a shear container 204 (column 9, lines 41-45). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Yoji et al. with the teachings of Duval et al. to have a fuse or pyrotechnic charge electrically signal a crash condition and trigger the breaking the break-away device so the shift lever breaks before coming into contact with the driver. This will further reduce the impact on a driver and improve the energy-absorption characteristics of the steering column assembly. It would also be obvious to modify Yoji et al. with the teachings of Duval et al. to have the fuse be held by a

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shear container to protect and secure the fuse when the vehicle is not in a crash condition. It will also secure the fuse during a crash condition to ensure proper breaking of the break-away device.

Yoji et al. also discloses a translating bracket (11, 18, & 19 of Figure 9) that is pivotably connected to the support member and operatively supports the shift lever.

#### ***Allowable Subject Matter***

6. Claim 5 and 6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter: The prior art fails to show a steering column assembly comprising a shift lever connected to a support member through a break-away device; which comprises a fuse held by shear container, limits the movement of the shift lever upwardly toward a parallel relationship with the shift axis, but releases the shift lever toward the parallel relationship in response to a crash condition; wherein the shear container extends through the support member and also through a translating bracket, where the translating bracket is pivotably connected to the support member and operatively supports the shift lever.

#### ***Response to Arguments***

8. Applicant's arguments filed on November 18<sup>th</sup>, 2005 have been fully considered but they are not persuasive.

On page 10, the applicant argues that the “force vector” of Yoji et al. is not parallel to the shift axis. However, the applicant does not claim a force or force vector being parallel to the shift axis, only a “collapsing movement toward a parallel relationship”. As shown by Figure 6, the collapsing movement of the lever will result in a parallel relationship after the flange 12 breaks away from the column due to the twisting force T.

Also on page 10 regarding the 35 USC 103(a) rejection, Duval is relied upon for the teaching of a fuse, not a collapsing lever.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Drew J. Brown whose telephone number is 571-272-1362. The examiner can normally be reached on Monday-Thursday from 7 a.m. to 4 p.m..


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul N. Dickson can be reached on 571-272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Drew J Brown  
Examiner  
Art Unit 3616

DJB



**DAVID R. DUNN**  
**PRIMARY EXAMINER**